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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,404	11/16/2000	Timothy J. Wright	207312	5041

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EXAMINER

IQBAL, KHAWAR

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/31/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/714,404

Applicant(s)

WRIGHT, TIMOTHY J.

Examiner

Khawar Iqbal

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 05.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3,8,12 and 13 rejected under 35 U.S.C. 102(e) as being unpatentable by Park (6408175).

3. Regarding claim 1 Park teaches a method of authenticating mobile user equipment in a mobile telecommunications network comprising the steps of (abstract, fig. 3):

passing an authentication element forming at least part of an authentication vector, from a serving network to mobile user equipment (col.3, lines 50-58, col. 4, lines 28-40),

deciding in the user equipment based at least in part on the value of a predetermined field contained in the authentication element, when to generate a termination message (col.3, line 59-col. 4, line 9), and

passing the termination message from the mobile user equipment to the serving network which message contains a value indicating that the serving network must

obtain a further authentication vector before allowing the user equipment to make further calls (col.4 lines 10-20 and 28-60, col. 6, lines 32-47).

Regarding claim 2 Park teaches wherein the termination message is a predetermined key set identity value (col.5, lines 29-50).

Regarding claim 3 Park teaches wherein the predetermined field is an authentication management field (col. 5, lines 29-50).

Regarding claim 8 Park teaches A method of authenticating mobile user equipment in a mobile telecommunications network comprising the steps of (abstract, fig. 3):

requesting service from a serving network to which the user equipment is not directly subscribed (col.3, lines 50-58),

passing the request for service from the serving network to a home operator network to which the user equipment is directly subscribed (col. 4, lines 1-9, col. 4, line 61-col. 4, line 20, fig. 3),

generating an authentication vector in the home operator network which includes an authentication management field (col.5, lines 15-40),

passing the authentication vector from the home operator network to the serving network (col. 4, lines 1-9, col. 4, line 61-col. 4, line 20, fig. 3),

passing an authentication element forming at least part of the authentication vector from the serving network to the user equipment (col. 3, lines 50-58, col. 4, lines 28-40, col. 6, lines 32-47),

extracting in the user equipment an authentication management field from the authentication element (col.4, lines 21-28),

generating in response at least to a predetermined value of the authentication management field, a predetermined key set identifier, and passing the key set identifier to the serving network (col.4, lines 29-53).

Regarding claim 13 Park teaches mobile user equipment for use in a mobile telecommunications network including means for receiving from a serving network (abstract, fig. 3), an authentication element forming at least part of an authentication vector (col. 3, lines 50-58, col. 4, lines 28-40), decision means for deciding in the user equipment based at least in part on the value of a predetermined field contained in the authentication element (col. 3, line 59-col. 4, line 9), when to generate a termination message, and means for passing the termination message from the mobile user equipment to the serving network which message contains a value indicating that the serving network must obtain a further authentication vector before allowing the user equipment to make further calls (col. 4 lines 10-20 and 28-60, col. 6, lines 32-47).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6,9-11,14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (6408175) and further in view of Harris et al (6442406).

Regarding claims 4-6,9-11,14-16 Park does not specifically teach total call duration, time elapsed, and total number of calls made. Park teaches a random number (RAND) and an authentication (AUTHRs) are transmitted from a network to a mobile station (10), to generate a random number (RANDBS) and an authentication. An authentication (AUTHBSs) is generated in the network based on the random number from the mobile station and transmitted to the mobile station, if the two authentications are equivalent. A mutual authentication is completed for transmitting necessary parameters to mobile station, if the successive authentications are equivalent.

In an analogous art, Harris et al teaches total call duration, time elapsed, and total number of calls made (abstract, col. 2, lines 7-25, and 44-65). The identifiers of telephone numbers that is exempt from the limit value and a reset interval after which the limit value is automatically reset. The telephone is allowed to transmit calls as long as the limit value is not exceeded, and until the reset interval has elapsed, if the call corresponds to the stored telephone number. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Park by specifically adding features of total call duration, time elapsed, and total number of calls made purpose of the limits include limits on total airtime and airtime per call for a specified interval as taught by Harris et al.

6. Claims 4-6,9-11,14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (6408175) and further in view of Blanke et al (20010046850).

Regarding claim 7 Park does not specifically teach SIM. Park teaches Particularly, the AUTHR is obtained by performing an authentication algorithm utilizing the secret key A_KEY, the random number RAND and the MIN stored in the MS 10.

In an analogous art, Blanke et al teaches SIM (abstract, paragraph # 0047). The mobile handset using SIM carries out a call step to a special service number before the authentication step providing a high level of confidence that the base station is receiving the correct handset call. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Park by specifically adding features of SIM purpose of data can advantageously be stored on the smart card (SIM card) of the mobile terminal or on a special card dedicated to setting up the link with the communication system as taught by Harris et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mizikovsky (20010044296), Schroderus et al (20020068548), Charley (6542735), Schmitz (6539224), Alos et al (6546240), Palaniswamy (6591095), and Hayashi et al (6321094) teach commands corresponding to authentication and ciphering requests that are received and transmitted internally by the mobile device are converted by SIM command/response interface 110 to a standardized command format.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **BANKS-HAROLD, MARSHA**, can be reached at 703-305-4379.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2684 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal

Khawar Iqbal
7-22-03

Marsha D Banks-Harold
MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
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